

Notice of Allowability

Application No.

09/744,360

Examiner

Anthony Quash

Applicant(s)

DARLING ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed on 9/7/04.
2. ☒ The allowed claim(s) is/are 59-88.
3. ☒ The drawings filed on 22 January 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Allowable Subject Matter

Claims 59-88 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance: With respect to independent claim 59, the prior art of record does not teach nor disclose a faraday cup detector array, wherein each faraday cup has a unit cell comprising two conductive material-clad insulating walls separated by a U-shaped conductive material, each insulating wall having a first conductive surface in electrical contact with the U-shaped conductive material and a second conductive surface electrically connected to the reference potential, the U-shaped conductive material and two first conductive surfaces defining a conductive cup, and wherein each unit cell includes a means for electrically connecting the conductive cup to the electronic interface, in combination with the remaining aspects of the claim. Since this aspect is not taught nor disclosed in the prior art of record, independent claim 59 and dependent claims 60-66, which also incorporate this aspect, are deemed allowable over the prior art of record.

With respect to independent claim 67, the prior art of record does not teach nor disclose a faraday cup detector array, wherein a partially insulated conductive housing in which the plurality of cups is supported, the conductive housing being electrically connected to a reference potential, wherein the cup comprises a conductive material isolated from the housing through an insulator, and wherein the conductive housing comprises an oxidizable metal block having a length, width, and thickness, and a plurality of channels through its thickness for receiving the cups, wherein the block is

bonded to an insulating substrate, in combination with the remaining aspects of the claim. Since this aspect is not taught nor disclosed in the prior art of record, independent claim 67 and dependent claims 68-76, which also incorporate this aspect, are deemed allowable over the prior art of record.

With respect to independent claim 77, the prior art of record does not teach nor disclose a faraday cup detector array, wherein a partially insulated conductive housing in which the plurality of cups is supported, the conductive housing being electrically connected to a reference potential, wherein the cup comprises a conductive material isolated from the housing through an insulator, wherein the conductive housing comprises a silicon wafer having a length, width, and thickness, and a plurality of wells formed into its thickness for receiving the cups, in combination with the remaining aspects of the claim. Since this aspect is not taught nor disclosed in the prior art of record, independent claim 77 and dependent claims 78-88, which also incorporate this aspect, are deemed allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,020,592 by Liebert et al is considered

pertinent to the applicants' disclosure due to its dose monitor for plasma doping system. However, the present claims remains patentable over this piece of prior art due the reasons state above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Quash whose telephone number is (571)-272-2480. The examiner can normally be reached on Monday thru Friday 9 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571)-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Quash

AQ
9/13/04


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2880